

Witte Vac - Mat™

The vacuum system you can cut right into!

Application

Wide spectrum of different
workpiece forms can be clamped

- Grinding
- Milling
- Drilling
- Five sided treatment including milling
into the Vac-Mat

Advantages

- Strong hold down force
- Clamping surface with a high friction value
- Milling through of outer and inner contours
- Precise and exact cut outs due the fact that
the workpiece can be milled through into the
VacMat leaving a clean cut out

Handling

- Set up time reduced to seconds as fitting
of single rubberseals become obsolete
- Surface friendly material which avoids
scratching of workpiece surface area
- No extra clamping fixture needed

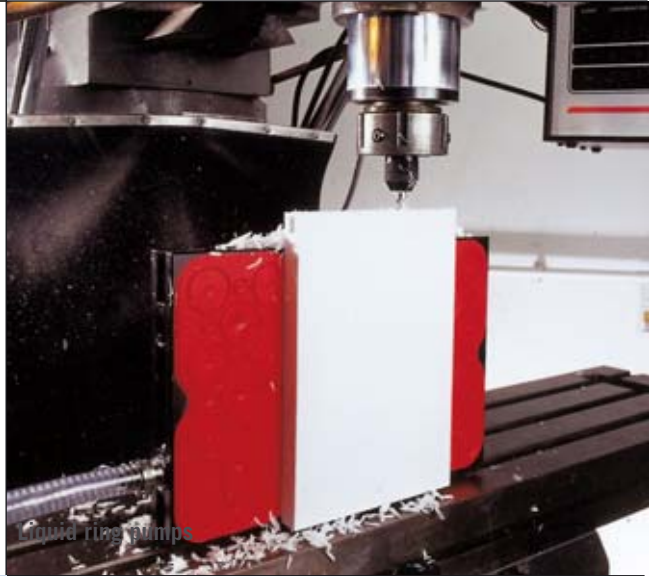
Direct milling
through a work-piece
on a modular chuck



Vac - Mat™



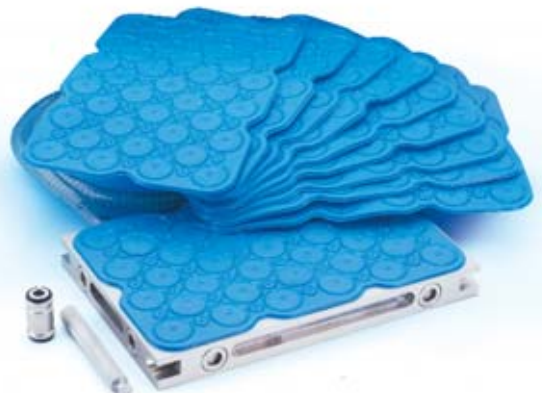
Accessories



Direct milling



Modular
VAC - Mat™ chucks



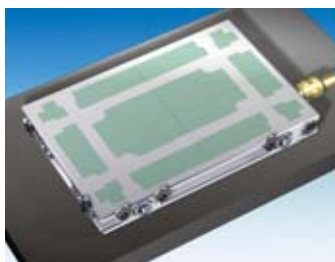
VAC - Mat™ Sets



The lugs underneath the mat guarantee fast and accurate positioning of the VAC-MAT™ on the special modular vacuum chuck



The modular concept allows connection of several vacuum chucks. The vacuum supply to each chuck continues through the connection elements.



In modular chucks additional holes can be drilled in the green areas to allow insertion of pins for positioning. Further information on page 114.

VAC-MAT™ Application

What is VAC-MAT™ ?

It is a thin soft polymer mat with many spaced out vacuum points, suckers in different sizes with a fine hole in each centre and a raised lip. On the underside there are six lugs which locate in the special VAC-MAT™ chuck. On the mat under surface there are grid shaped grooves which distribute the vacuum to each of the small holes. A lip right around the outside edge ensures no leakage.

What size is VAC-MAT™?

All VAC-MAT™s are 2,5 x 200 x 300 mm. The tolerance lies at +/- 0,04mm and concave upto 0,1mm. To increase the size of the working area, the modular VAC-MAT™ chucks are connected to one another and VAC-MAT™ s are simply placed on as described.

Is VAC-MAT™ reusable?

The working life of a VAC-MAT™ depends on the number and size of cuts made into the mat during machining.

What kinds of VAC-MAT™ are available?

There are 5 types of mat available:

- Blue mats, standard for normal machining
- Green mats, slightly harder in consistency for heavier machining
- Red mats, only to be used once
- Black mats, are used to seal the areas not required on the VAC-MAT™ chucks during machining.
- Grey mats, heat resistant, for temperatures upto 80°C

Max. temperatures during application:

Upto 40°C VAC-MAT™s can be reused without any restrictions.

Upto 50°C VAC-MAT™s can only be used once, the sucker lips will not return to their original position.

For temperatures higher than 50°C upto max. 80°C the heat resistant grey mat (No. 13156) should be used



Starter-Sets

These starter sets are designed to give the operator a complete solution to set up and start machining immediately. All plates are modular and can be extended with a simple connector at any time. These Sets are available in three different dimensions, which are defined by the size of the base plates. (see fig. right hand side) All plates are modular

Supply includes:

- 1 x Tail end
- 1 x Coupling
- 7 x Blind plug
- 10 x O-ring
- 8 x Crosspieces
- 10 x VAC-MAT™ blue
- 1m Vacuum suction hose with wire spiral 18/12



Modular VAC-MAT™ plates are made of high-tensile aluminium. Steel versions are available on request.

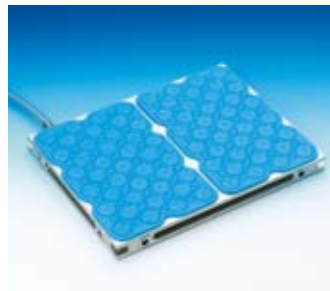
| No. | Name | lxwxh | kg |
|--------------|---------------------------------|------------|----|
| 81759 | VAC-MAT™ Starter-Set Single | 300x200x30 | 5 |
| 82837 | VAC-MAT™ Starter-Set Double | 300x400x30 | 10 |
| 82825 | VAC-MAT™ Starter-Set Four times | 600x400x30 | 20 |

Other dimensions on applications.

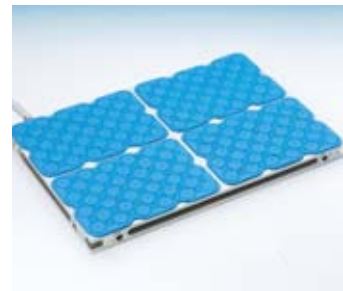
Dedicated chucks are also available but Vac-Mats™ are 200x300 mm and therefore any larger surface area must be a multiple of 200x300 mm.



VAC-MAT™ Starter-Set
Single

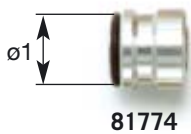


VAC-MAT™ Starter-Set
Double



VAC-MAT™ Starter-Set
Four times

Accessories



| No | Name | lxwxh |
|--------------|--|--------------|
| 11030 | VAC-MAT™/blue, normal machining | 300x200x2,42 |
| 11053 | VAC-MAT™/green, heavier machining | 300x200x2,42 |
| 11548 | VAC-MAT™/red, only used once | 300x200x2,42 |
| 11029 | VAC-MAT™/black, for covering areas not required during machining | 300x200x2,5 |

| No. | Name | Dimension |
|--------------|--------------------------------------|--|
| 81761 | Hose connector incl. O-Ring | $\varnothing 1 = 23$ $\varnothing 2 = 14$ |
| 81762 | Vacuum chuck adapter incl. O-Ring | $\varnothing 1 = 23$ |
| 81774 | Plug incl. O-Ring | $\varnothing 1 = 23$ |
| 11032 | O-Ring | $\varnothing 16 \times 2,5$ |
| 28331 | Tool for setting up | $\varnothing 15 \times 120$ |
| 89092 | VAC-MAT™ - Demo | CD-ROM |



For fixing end stops, threaded holes have to be made in the plate by the customer.

Height adjustable end stops

in form of excentric washers:

| No. | pcs. | \varnothing mm | height of plate mm | knurled nut/ grub screw |
|--------------|------|------------------|--------------------|----------------------------|
| 85405 | 6 | 20 | 32,5 | M5 |
| 85409 | 9 | 27 | 38,0 | M6 |
| 85410 | 12 | 30 | 48,0 | M6 |

Im Lieferumfang enthalten:

- Skizze für die Befestigungsbohrungen
- Passende Rändelmuttern und Gewindestifte

Befestigungsbohrungen sind vom Kunden selbst einzubringen.

Thin workpieces can also be clamped and machined securely but gently using VAC-MAT™



Combined special clamping system made out of Witte VAC-MAT™ and FLIP-POD™ (see p.70)

